HOS 1-22
2986

DRAFT DRAFT DRAFT DRAFT

United States Department of Agriculture

Forest Service

RO

Reply: 3400

Date:

Subject: Douglas-fir Blowdown, Mt Baker RD

To: Forest Supervisor, Mt. Baker-Snoqualmie NF

On July 31, 1992, Dave Bridgwater, entomologist, from Forest Pest Management visited the Mt. Baker District to assess Douglas-fir beetle attacks in standing trees on the west side of Baker Lake. These attacks apparently resulted from populations that build-up in blowdown caused by a December, 1990 windstorm. This trip was a follow-up to a trip made to the same area in 1991 which addressed the potential for population build up in blowdown. He was accompanied by Barbara Busse, Forest silviculturalist.

This blowdown occurred around Baker Lake in a Spotted Owl Habitat Conservation area. About 50 percent of the material blown down in the windstorm was Douglas-fir; the remainder hemlock and silver fir. Hemlock and true fir are not hosts for Douglas-fir beetle. The blowdown varied from single scattered trees to patches where most of the trees were down. A lot of the blowdown which occurred around active logging sites was removed in 1991. This helped to lessen the hazard of attacks in standing green trees.

Douglas-fir blowdown usually provides prime habitat for Douglas-fir bark beetles. They rapidly increase their populations and move from this blowdown and attack standing damaged or undamaged trees the following year. In addition, silver fir beetles could develop in the true fir blowdown, and ambrosia beetles may attack all species involved.

At the time of this visit, Douglas-fir beetles had emerged from the blowdown and had attacked standing trees. In addition, ambrosia beetles had attacked some of the same trees. The trees attacked by Douglas-fir beetle this spring are beginning to fade, and, on close examination, have brownish boring dust in the bark crevices. We recommend that marking of infested trees for sanitation removal be delayed until late summer or fall. This will increase the likelihood that most of the infested trees have begun to fade, and identifying those trees will be easier. In addition to locating trees that appear to be fading, the spots of brown boring dust should appear completely around the tree at not less than six inch intervals and these attacks should extend up the bole for at least eight feet. Trees not meeting this latter criteria may not be killed by the beetle infestation, but have a significant portion of the bole and crown survive. If this type of tree would be considered a hazard tree,

that is, if it falls it would strike a structure, parking lot, or area in which people congregate, you might consider its removal.

If all trees available for removal are removed before next spring, additional mortality from the broods in these trees attacking new trees next spring can be minimized. You can determine the significance of this action by considering that for every 4 standing trees infested this year, one additional standing tree can be expected to be infested next year. The close proximity of areas not available for removal of trees will provide a reservoir of beetles and some may enter treated areas next spring.

When visiting the campgrounds while looking for Douglas-fir beetle infested trees, campers complained about "worms and frass" falling out of the trees and onto the picnic tables and campers. The insect causing this is the hemlock looper. In addition, some spots of defoliation caused by hemlock looper are showing up on the ease side of Baker Lake. This defoliator of hemlock and other associated conifers has been a serious defoliator in the past, but has not been reported as causing any damage since the early 60's. During our Annual Aerial Insect Detection Survey, numerous spots of defoliation were mapped on the Mount Baker-Snoqualmie NF that were attributed to this insect or the black headed budworm, also a defoliator of mixed conifers. We do not know what these defoliating insects will do over the next few years. We intend to monitor and evaluate this situation in the future.

If we can provide further information, please let me know.

M.Ollieu, Director
Forest Pest Management